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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

STIMPERT, PHILIP EARL

ART UNIT

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3746

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/531,558	RANSOM ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Philip Stimpert	3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 20 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-12, 14-23, 25-28 and 32-37 is/are pending in the application.
- 4a) Of the above claim(s) 23 and 25-28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 7-11, 14, 16-22, 35 and 36 is/are rejected.
- 7) ☒ Claim(s) 4-6, 12, 15, 32-34 and 37 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/14/2005</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of Group I in the reply filed on 20 August 2008 is acknowledged.
2. Claims 23 and 25-28 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 20 August 2008.

### ***Claim Objections***

3. Claims 22 and 32 are objected to because of the following informalities: claim 22 omits "is" between "housing" and "adapted." Claim 32 recites "in the a second fluid channel," from which recitation "a" should be deleted. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claims 7-11, 14, and 16-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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6. Regarding claim 7, line 3 recites "a signal output from the first sensor," which appears to constitute a second positive recitation of that signal. If it is intended that this claim recite a signal distinct from the "signal indicative of the temperature of the stator" of claim 1, then further definition in the claim will be necessary to avoid indefiniteness.

7. Regarding claim 9, line 3 recites "a signal output from the second sensor," which appears to constitute a second positive recitation of that signal. If it is intended that this claim recite a signal distinct from the "signal indicative of the temperature of the rotor" of claim 1, then further definition in the claim will be necessary to avoid indefiniteness.

8. Regarding claim 14, line 4 recites "that signal." It is unclear which of the three signals which are concurrently recited in that claim is being referred to.

9. Regarding claim 16, lines 4-5 positively recite "a fluid," conflicting with the previous recitation of fluid in claims 1 and 9.

10. Regarding claim 17, the claim recites "each component," which does not agree in scope with "at least one," since each may only refer to one of a plurality.

***Claim Rejections - 35 USC § 102***

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 1-3 and 20-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Wright et al. (US 4,983,106).

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13. Regarding claim 1, Wright et al. teach a pump comprising a stator (3), two rotors (1, 2) mounted within a housing (3), the housing comprising a first fluid channel (32) extending about the rotors (1, 2), the rotors comprising second fluid channels (33, 34). Wright et al. also teach a first sensor (44) configured to output a signal indicative of the temperature of the stator (col. 3, ln. 21), a second sensor (43) configured to output a signal indicative of the temperature of the rotor, and thermal control means (41) for controlling the temperature of the fluid, when present, in the channels depending on the magnitude of the signals output from the sensors (col. 3, ln. 21-27).
14. Regarding claim 2, Wright et al. teach that the first sensor (44) is located at the stator (see Fig. 1).
15. Regarding claim 3, Wright et al. teach that the second sensor (43) is located substantially in a gear box (construed as 25 and surroundings)
16. Regarding claim 20, Wright et al. teach that the pump is a screw pump (col. 1, ln. 30).
17. Regarding claim 21, Wright et al. teach that the housing (3) comprises an inner skin (defining cavity 30) and an outer skin (adjacent 48), and a first cavity (30) formed by the inner skin, the rotors (1, 2) being mounted within the first cavity (30), the first fluid channel (32) being formed between the inner and outer skins of the housing, extending the length of and encircling the rotors (1, 2).
18. Regarding claim 22, Wright et al. teach that the inner skin of the housing (3) forms the stator.

***Claim Rejections - 35 USC § 103***

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wright et al. in view of Steffens et al. (US 4,983,107).

21. Wright et al. substantially teach the limitations of claim 1 from which claim 35 depends. Wright et al. do not teach a claw pump, instead teaching a dual screw rotor pump. Steffens et al. teach a claw pump. One of ordinary skill in the art would be aware that the claw rotors taught by Steffens et al. are a known alternative to the screw rotors of Wright et al., and that they could be used in a pump such as that of Wright et al. to produce the predictable result of pump for compressing fluids, or creating a vacuum as directly taught by Steffens et al. (abstract). Further, a claw pump could have been formed by the same known methods of pump construction as were previously used to construct Wright et al. Therefore, the substitution of a claw type rotor as taught by Steffens et al. for the screw rotors of Wright et al. would have been obvious to one of ordinary skill in the art at the time of the invention.

22. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wright et al. in view of Lorenz (US 2,906,448).

23. Wright et al. substantially teach the limitations of claim 1 from which claim 35 depends. Wright et al. do not teach a Roots pump, instead teaching a dual screw rotor

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pump. Lorenz teaches a Roots pump. One of ordinary skill in the art would be aware that the claw rotors taught by Lorenz are a known alternative to the screw rotors of Wright et al., and that they could be used in a pump such as that of Wright et al. to produce the predictable result of pump for compressing fluids, or creating a vacuum as directly taught by Lorenz (col. 1, ln. 15-17). Further, a Roots pump could have been formed by the same known methods of pump construction as were previously used to construct Wright et al. Therefore, the substitution of a Roots type rotor as taught by Lorenz for the screw rotors of Wright et al. would have been obvious to one of ordinary skill in the art at the time of the invention.

***Allowable Subject Matter***

24. Claims 7-11, 14, and 16-19 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

25. Claims 4-6, 12, 15, 32-34, and 37 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

26. The following is a statement of reasons for the indication of allowable subject matter: the sensor in the exhaust gas flow of claim 4 and the first and second control means of claim 5 are not shown in the prior art of record in conjunction with the remaining limitations of each claim.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip Stimpert whose telephone number is (571)270-1890. The examiner can normally be reached on Mon-Fri 7:30AM-4:00PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Devon Kramer can be reached on (571) 272-7118. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Devon C Kramer/  
Supervisory Patent Examiner, Art  
Unit 3746

/P. S./  
Examiner, Art Unit 3746  
5 December 2008